REMARKS

Applicants greatly appreciate the withdrawal of a number of rejections previously made and address the outstanding ground for rejection as follows:

Claims 9-18 and 20 were rejected as assertedly obvious over McDaniel (US2004/0109853) in view of Selvig, *et al.* (U.S. 5,919,689).

As to claim 9, the only independent claim, the Office action states that McDaniel teaches various coatings and paints comprising biomolecular compositions derived from a microorganism including living microorganisms (citing the Abstract and paragraph 117). The Office action further states that McDaniel teaches a multicoating system having multiple layers of coatings wherein the top coat comprises the biomolecular composition (citing paragraph 45) and reminding the reader that the biomolecular composition could contain live microorganisms (again citing paragraph 117).

The Office action also states that Selvig describes substrates with coatings containing microorganisms that include furniture and other architectural materials such as those set forth in the claim and that the presence of living microorganisms is suggested by Selvig even if it turns out that it is not suggested by McDaniel.

The nature of interpretation of paragraph 117 of McDaniel was discussed at length at the interview. The first sentence of this paragraph, in applicants' view, simply indicates the source of the biomolecules that are to be included, but does not suggest the use of living organisms in the coating itself. The fact that paragraph 117 merely refers to the origin of the biomolecules is confirmed in paragraphs 253, *et seq.*, which discuss host cells as a means to produce the biomolecule. As is evident from these paragraphs, the cells described by McDaniel are indeed used as sources for the recombinant production of the desired enzymes. The entire focus of McDaniel is

the use of such enzymes to decompose organophosphorus compounds which are highly toxic. (A review of the prosecution of McDaniel reveals that the applicant attempted to have the application made special on the grounds that it was directed to an invention for combating terrorism.) There is simply no discussion in McDaniel of using living organisms in a layer above a coating that is of a water-insoluble substance. Paragraph 45 of McDaniel describes only a coating containing biomolecules.

As further discussed at the interview, the only inclusion of microorganisms in McDaniel's material are as dead particulate supports. This is mentioned in paragraph 110; but it is clear that these are only supports and not the biomolecules that are active. McDaniel teaches that live microorganisms are undesirable (paragraph 713). A microorganism is generally considered a contaminant capable of damaging a film or coating and if a particulate support composed of microorganisms is used, a preservative to kill the bacteria is to be included. This clearly teaches away from the use of living microorganisms as would be implied by claims 15 and 16 in the coating, and as needed to provide a suitable pigment as required by claim 9.

Selvig really adds little of relevance to the invention. It is cited as showing the presence of living organisms in the event McDaniel does not. However, the living organisms are present to secrete amylolytic or proteolytic enzymes in order to hydrolyze nutrients that otherwise would encourage the growth of organisms such as tube worms, mussels, oysters, claims and the like as well as algae (see column 5). These macro organisms, that cause fouling do not attach or survive because their nutrients are destroyed by the microorganisms secreting these enzymes.

This effectively teaches away from the present claims where the microorganisms are used to obtain a uniform pigmented surface. There is no document cited that suggests using

microorganisms for such a purpose and no location in McDaniel or Selvig has been noted that would lead to that suggestion.

Attached as Exhibit A is a photograph of a board, both coated and uncoated with the compositions of the invention, and it is clear that a desirable result is obtained. This photo was shown at the interview as well.

Thus, claim 9, the composition claim on which all other composition claims depend is not suggested by McDaniel or Selvig alone or in combination.

Applicants do not rely on the further limitations of claims 10-14, 17-18 or 20 for patentability. However, the limitations of claims 15 and 16 are effectively taught away from by McDaniel since McDaniel indicates that even the particulate microorganisms that might be in McDaniel's coating must be dead and preservatives are desirable.

Applicants appreciate that claim 19 is currently allowable if rewritten in independent form.

In view of the failure of McDaniel and Selvig alone or together to suggest providing a uniform coating of pigmented microorganisms atop a water-soluble layer to assure a uniform color on a surface, claim 9 and its dependent claims are in a position for allowance and claims 1-7 may be rejoined. Reconsideration and passage to issue of claims 1-7 and 9-20 is respectfully requested.

Should minor issues remain that could be resolved over the phone, a telephone call to the undersigned is respectfully requested.

In the unlikely event that the transmittal letter is separated from this document and the Patent Office determines that an extension and/or other relief is required, applicant petitions for any required relief including extensions of time and authorize the Commissioner to charge the cost of

such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952** referencing docket No. 313632002000.

Respectfully submitted,

Dated: July 21, 2010 By: / Kate H. Murashige /

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